Review of the Performance-Based Research Fund (PBRF)

Consultation Document
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Purpose of this document

The Performance-Based Research Fund (PBRF) has been in place for 11 years. It is timely to review the PBRF objectives and consider policy and operational changes to maximise the value of the Government’s investment through the PBRF, which will be $300 million by 2016.

This consultation document seeks views on proposed changes to increase the effectiveness and efficiency of the PBRF in line with the Government’s objectives for tertiary education, research, science and innovation.

This document begins by providing background information about the objectives, design and performance of the PBRF. This is followed by an overview of the Government’s proposal for the PBRF in the future and then by details on proposed changes. Questions for your feedback are included in each section and are also listed together at the end of the document.

The proposal will be refined following the consultation process. We would like to hear your views on the benefits and risks of this proposal for tertiary education organisations, teaching and research staff, students, and research-users outside the tertiary education sector.

The Government will consider feedback on this proposal when making final decisions on any changes to the PBRF. A working group, including tertiary education sector representatives, will work through the implementation of any changes once final decisions have been made.

How to provide feedback

You can provide feedback on this proposal online at http://www.surveymonkey.com/s/PBRFreview.

Alternatively, you can email your submission to pbrf.review@minedu.govt.nz.

The deadline for providing feedback is 4 October 2013.

Please note that the Ministry of Education intends to publish a summary of consultation feedback later this year. If you do not wish your name and/or organisation to be associated with your feedback in the consultation summary report, please indicate this in your submission.
Background: What is the PBRF and how has it performed to date?

The PBRF was established in 2002 to ensure that excellent research in the tertiary education sector is encouraged and rewarded. It provides financial and reputational incentives to support high-quality tertiary education research and research-led teaching and learning by:

- assessing research excellence
- publishing information on research performance
- allocating funding based on past research performance.

Prior to the PBRF, tertiary education organisations received funding to support research-led teaching based on the volume of equivalent full-time students at degree level and above. There were a number of problems with this system, including the volatility and short-term nature of funding, the lack of incentives for research excellence, the lack of public accountability for research funding, and weak incentives for private sector research funding.

Original PBRF objectives

The original objectives of the PBRF were to:

- increase the average quality of research
- ensure that research continues to support degree and postgraduate teaching
- ensure that funding is available for postgraduate students and new researchers
- improve the quality of public information on research outputs
- prevent undue concentration of funding that would undermine research support for all degrees or prevent access to the system by new researchers
- underpin the existing research strengths in the tertiary education sector.

Approach to assessment

The approach to assessing research performance through the PBRF has been based on three measures:

- **Quality Evaluation**: assessment of the research quality of participating tertiary education organisations’ teaching and research staff, based on peer review of each staff member’s Evidence Portfolio of research outputs, Peer Esteem and Contribution to the Research Environment, accounting for 60% of the fund

- **Research Degree Completions**: the number of postgraduate research-based degrees completed in the tertiary education organisation, accounting for 25% of the fund

- **External Research Income**: the amount of income for research purposes received by the tertiary education organisation from external sources, accounting for 15% of the fund.

The Quality Evaluation has been undertaken periodically (2003, 2006, 2012 and planned for every six years thereafter) by interdisciplinary peer review panels consisting of disciplinary experts from both within New Zealand and overseas.
Tertiary education organisations present Evidence Portfolios prepared by eligible staff members. Evidence Portfolios have three components:

- **Research Outputs**: the outputs of each teaching and research staff member’s research accounting for 70% of the Quality Evaluation (each staff member nominates up to four of their best research outputs for primary consideration, and up to 30 other research outputs).

- **Peer Esteem**: evidence of recognition of the quality of the research of the staff member, as recognised by their peers in the form of fellowships, prizes, awards, memberships of learned societies, participation in editorial boards, invitations to present at conferences, favourable reviews, etc., accounting for 15% of the Quality Evaluation (each staff member determines their top 30 examples, providing a list and details to the peer review panel).

- **Contribution to the Research Environment**: evidence of the staff member’s contribution to a vital, high-quality research environment, both within the tertiary education organisation and beyond it, for example, membership in research consortia, generation of External Research Income, supervision of student research, etc., accounting for 15% of the Quality Evaluation (each staff member determines their top 30 examples, providing a list and details to the peer review panel).

Evidence Portfolios have been evaluated through a rigorous process that includes independent assessment, panel moderation and, in some cases, cross-referrals to other panels, expert advisors, and expert advisory groups. In the 2012 Quality Evaluation, funded Evidence Portfolios were assigned one of four quality categories:

- A – the staff member produced research outputs of a world-class standard, established a high level of peer recognition and esteem within the relevant subject area of their research, and made a significant contribution to the New Zealand and/or international research environments.

- B – the staff member produced research outputs of a high quality, acquired recognition by peers for their research at least at a national level, and made a contribution to the research environment beyond their institution and/or a significant contribution within their institution.

- C – the staff member produced a reasonable quantity of quality-assured research outputs, acquired some peer recognition for their research, and made a contribution to the research environment within their institution.

- C(NE) (NE refers to new and emerging researchers) – the staff member produced a reasonable platform of research, as evidenced by having either completed their doctorate or equivalent qualification and produced at least two quality-assured research outputs, or produced research outputs equivalent to a doctorate and at least two quality-assured research outputs.

Following Quality Evaluation rounds in 2003 and 2006, the Tertiary Education Commission reviewed the operation of the PBRF and implemented changes to improve its effectiveness and efficiency.

**Allocation of funding**

Funding in relation to the Quality Evaluation measure has been based on the quality categories assigned to Evidence Portfolios, the funding weighting for the subject area to which Evidence Portfolios have been assigned, and the full-time equivalent status of the participating tertiary education organisation’s PBRF-eligible staff.
Funding in relation to the Research Degree Completion measure has been based on:

- the number of postgraduate research-based degrees completed in the tertiary education organisation
- the funding weighting for the subject area (same as the Quality Evaluation measure)
- an equity weighting of two for Māori and Pasifika student completions
- a strategic weighting of four for theses completed in te reo Māori (from 2013)
- the volume of research in the degree programme.

Funding in relation to the External Research Income measure has been based on a declaration of research funding from outside the tertiary sector, and contestable funding from within the tertiary sector, received by a tertiary education organisation and/or any wholly-owned subsidiary (excluded is income received by tertiary education organisation employees in their personal capacity, and income from controlled trusts, partnerships, and joint ventures).

**Reporting**

At the conclusion of each Quality Evaluation round, a major report on the overall results has been prepared by the Tertiary Education Commission and publicly released. The reports have included brief summaries of the Quality Evaluation process, commentary on the major findings, and detailed descriptions of the results.

Average quality scores of each Quality Evaluation round have been reported at the following levels: participating tertiary education organisation, peer review panel, subject area, and academic unit nominated by participating tertiary education organisations. This provides detailed performance information that can inform strategic planning and resource allocation within tertiary education organisations.

After the 2012 Quality Evaluation, four different types of average quality scores (AQSs) were reported. The primary measure, AQS(N) reflected performance against the number of PBRF-eligible staff who received funded quality categories, and was calculated at the level of the tertiary education organisation, panel, subject area, and nominated academic unit. Three additional AQS measures showed tertiary education organisation-level performance against degree-level equivalent full-time students (AQS(E)), postgraduate-degree-level EFTS (AQS(P)), and teaching-only, teaching and research, and research-only staff (AQS(S)).

Quality categories assigned to individual staff members have been reported only to the staff member’s tertiary education organisation and have not been publicly released.

Between Quality Evaluation rounds, the Tertiary Education Commission has published information on the performance of tertiary education organisations against the three PBRF measures and on funding allocated to each participating tertiary education organisation via the PBRF, including information on the funding generated by each of the three performance measures. The Tertiary Education Commission has also published information concerning the number of research degrees completed in each tertiary education organisation, the subject areas and subject weightings for these qualifications, and the ethnicity of completing students. The Tertiary Education Commission has also published the level of PBRF-eligible External Research Income generated by each tertiary education organisation.

The performance of the PBRF to date

The design of the PBRF compares well with performance-based research funding systems internationally. New Zealand’s mixed model, which combines the use of peer-review and quantitative metrics, provides a robust and comprehensive approach to assessing research performance and accounting for, rewarding, and encouraging a wide range of valued research activities.

Between the first Quality Evaluation in 2003 and the most recent Quality Evaluation in 2012, the PBRF has supported an increase in tertiary education research quality and productivity. Quantitative measures show the following improvements in tertiary education research performance:

- The average quality of tertiary education research, as measured through the Quality Evaluation, increased in each assessment round.
  - The proportion of staff who received ‘A’ and ‘B’ quality categories increased from 2003 to 2006 and 2006 to 2012.
  - The proportion of staff who received funded quality categories increased from 2006 to 2012.
  - Increases in the number of Evidence Portfolios receiving ‘A’ quality categories were seen across all PBRF subject panels from 2006 to 2012.
- Research Degree Completions have increased, especially at the doctoral level.
- PBRF-eligible External Research Income earned by universities increased rapidly between 2002 and 2011.
- The share of world-indexed publications and citations of research from New Zealand tertiary education institutions increased. This improvement was evident to some degree among all universities.
- The proportion of research publications produced at New Zealand tertiary education institutions that were cited increased relative to the world average.
- The proportion of subject areas where research by New Zealand tertiary education institutions had a relative academic impact above the world average and the average of the Australian Group of Eight universities has increased.
- The Academic Ranking of World Universities, which ranks universities using research-focused quantitative measures, shows more New Zealand universities in the top 500 worldwide since 2003, and shows that most of the New Zealand universities now ranked in the top 500 have maintained or lifted their rankings since 2003.

Concerns have been raised that the PBRF Quality Evaluation has had a negative impact on research collaboration between researchers in New Zealand universities. There is limited empirical evidence available to assess this. However, recent analysis of journal article authorship at New Zealand universities shows that the extent of inter-institutional collaboration in indexed journal publications by New Zealand university authors has increased since the PBRF was introduced.

While the PBRF has performed well overall, there are specific areas that may be able to be improved. Some identified issues with current policy and operational settings include the following:

- The **Quality Evaluation** is seen by many as complex and costly to administer, with relatively high transaction costs for Government, tertiary education organisations,
academic departments and teaching and research staff. The total estimated transaction costs for universities and the Tertiary Education Commission associated with the Quality Evaluation for the six-year period between 2007/08 and 2012/13 was $52.1 million.\(^2\) This amounts to just under 4% of the PBRF funding allocated in that period. Universities bore the majority of these costs, which were driven primarily by time spent by staff compiling and assessing evidence portfolios.

- **The PBRF may create reputational and financial disincentives for tertiary education organisations to recruit, develop and retain new and emerging researchers.** New and emerging researchers typically attract lower quality categories compared with more experienced researchers, reducing their positive impact on the average quality scores for the tertiary education organisation and the amount of funding they attract to the tertiary education organisation. In essence, the PBRF may encourage tertiary education organisations to focus on the current performance and value of researchers, rather than future performance and value. This raises some concerns about the potential negative effects of the PBRF on the sustainability of the tertiary education workforce.

- **The PBRF may not sufficiently reward tertiary education organisations for attracting research income from non-government sources, or engaging in research commercialisation with economic benefits to New Zealand.** There are concerns that the PBRF may not adequately recognise user perspectives of research quality, or reward engagement in user-orientated research. In recent years, business investment in tertiary education research has fallen, as a proportion of total tertiary education research expenditure.

- **Current reporting of PBRF results may not provide a robust picture of average research quality across tertiary education organisations.** Measuring and reporting performance based on the number of teaching and research staff that receive a funded quality category may reward tertiary education organisations that submit fewer Evidence Portfolios from high-performing staff only. This may create perverse incentives and may not enable accurate comparisons of the research quality or intensity of the teaching and research workforce in different tertiary education organisations. Collecting staffing data at a single point in time may also have unintended consequences for tertiary education organisation hiring decisions.

- **Reporting of PBRF funding allocations to tertiary education organisations may not be transparent enough.** The Tertiary Education Commission does not publish detailed breakdowns of PBRF funding allocations by subject area and equity and strategic weightings to each tertiary education organisation. This means that the relationship between subject-level performance within tertiary education organisations and funding received may not be as explicit as it could be.

\(^2\) Based on information provided by Universities New Zealand including costs of assessing staff eligibility, providing staff census data, training and support for Evidence Portfolio preparation, Evidence Portfolio compilation, internal peer review of Evidence Portfolios, collation of Evidence Portfolios, support for the audit of the Quality Evaluation process, other costs, and unpaid hours provided by staff from tertiary education organisations for Quality Evaluation assessment panels and other assessment roles. Also based on information provided by the Tertiary Education Commission including direct and overhead costs relating to the 2012 Quality Evaluation.
For further information, please refer to the following Ministry of Education reports which have been produced as part of the PBRF review:


Overview of the Government’s proposal for the PBRF

Proposed objectives for the PBRF

The primary purpose of the PBRF is to provide research funding to tertiary education organisations to support high quality research-led teaching and learning for degree level and post-graduate students across New Zealand. The PBRF works alongside student achievement component (SAC) funding to ensure New Zealand students and international students studying in New Zealand receive degree and post-graduate qualifications that are truly world-class and internationally competitive.

The PBRF is a significant part of the New Zealand Government’s wider research and development funding programme. In 2016/17, it will reach $300 million annually; and it will make up about 20% of the Government’s total investment in research that year. It is therefore important that institutions are accountable for that funding and for their research performance. This is currently done through Investment Plans.

In determining how the PBRF is allocated and assessed, it is important to consider the wider objectives of New Zealand’s overall scientific research and innovation programme. These include the importance of conducting research that will provide economic, social, environmental and cultural benefits to New Zealand, the need to encourage business innovation and commercialisation, and the need to develop new scientific talent to strengthen New Zealand’s research system.

However there are a number of other funds more specifically designed to address these issues, including the Ministry of Business, Innovation and Employment's Vote Science and Innovation contestable funding, the National Science Challenges, the Primary Growth Partnership, Callaghan Innovation, and business-led research and development funds. The PBRF should remain primarily concerned with the enhancement of research-led learning for students. Its design parameters should, however, support Government’s wider science and innovation objectives.

The Government proposes to clarify and refine the PBRF objectives in line with its expectations for the PBRF as follows.

<table>
<thead>
<tr>
<th>Proposed PBRF objectives</th>
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<tr>
<td>The primary objectives of the PBRF are to:</td>
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<tr>
<td>- increase the average quality of basic and applied research at New Zealand’s degree-granting tertiary education organisations</td>
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<tr>
<td>- support world-leading research-led teaching and learning at degree and postgraduate levels</td>
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<tr>
<td>- assist New Zealand’s tertiary education organisations to maintain and lift their competitive rankings relative to their international peers</td>
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<td>- provide robust public information to stakeholders about research performance within and across tertiary education organisations.</td>
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In doing so, the PBRF will also assist to:

- support research activities that provide economic, social, cultural, and environmental benefits to New Zealand
- support the development of postgraduate student researchers and new and emerging researchers
- support commercialisation of research and technology transfer to New Zealand businesses and organisations.
Feedback question

1. Do the proposed objectives provide a clear statement of the Government’s expectations for the PBRF? What are the key advantages or disadvantages of the proposed objectives?

Core policy design features of the PBRF proposed to remain

Given the strong performance of the PBRF and the strengths of the PBRF’s core design features, the Government does not propose fundamental changes to existing policy settings. Core policy design features will remain, including:

- **Quality Evaluation:** assessment of the research quality of participating tertiary education organisations’ teaching and research staff, based on peer review of each staff member’s Evidence Portfolio of research activities, accounting for 60% of the fund
- **Research Degree Completions:** the number of postgraduate research-based degrees completed in the tertiary education organisation, accounting for 25% of the fund
- **External Research Income:** the amount of income for research purposes received by the tertiary education organisation from external sources, accounting for 15% of the fund.

The Government proposes to retain the use of the individual as the primary unit of assessment in the Quality Evaluation. In doing so, it acknowledges there are different points of view, with some preferring a group-based unit of assessment.

Peer review assessment of individual researchers provides strong incentives for teaching and research staff to increase their personal research quality and productivity. Individual researchers have the most influence over their own research outputs. Incentives for individuals to improve their own performance are weaker in systems with group-based assessments.

An individual unit of assessment also enables individuals and very small research groups to show their merits on the same basis as those in large groups. It avoids one of the pitfalls of group-based assessment, where results can be influenced disproportionately by the presence or otherwise of a single top researcher in a group.

In a practical sense, an individual unit of assessment allows for reporting of combined results for academic units, groups, and departments, as well as by subject area and tertiary education organisation. However, systems that use group-based assessment do not provide individuals with information about their own performance.

A panel of experts has provided advice to the Government on the relative merits of individual and group-based units of assessment. The panel was split on its view. It identified several potential benefits of a group-based assessment, including:

- greater encouragement of collaborative behaviour
- the prospect of identifying more clearly links between significant research groups and the impact of their work in the wider community
- a greater opportunity to accommodate new and emerging researchers.
- an opportunity to develop a new quality score (for academic groups) and thus avoid the problems associated with the current versions of the average quality scores.
The panel also identified several potential drawbacks of a group-based assessment, including:

- difficulty in defining appropriate ‘groups’ to assess (academic divisions, subject areas, departments, research groups, interdisciplinary research centres, inter-institutional research institutions, e.g. Centres of Research Excellence)
- group or institutional behaviour in allocating members to groups for assessment purposes, potentially creating artificial ‘groups’ for the purpose of maximising reputational or financial reward.
- the creation of a pre-assessment ‘transfer market’, where top-ranking individuals are sought to improve group status
- increased transactional costs as institutional research management systems will need to be updated to incorporate a new assessment framework, and new group-based evidence portfolios will need to be prepared in addition to gathering data on individuals’ research performance.

It is the Government’s view that the cited potential benefits of group-based assessments can be met within the other policy changes as proposed below. These changes would not lead to the identified potential drawbacks of group-based assessment listed above and on page 11.

**Feedback question**

2. **What are the benefits or risks for tertiary education organisations and teaching and research staff of retaining the core design features of the PBRF, including the individual as the unit of assessment?**

**Potential areas for improvement**

The remainder of this document outlines changes to the PBRF on which the Government seeks your input. The proposed changes aim to address identified issues with current policy and operational settings and to better align the PBRF with the Government’s tertiary education, research, science and innovation objectives. The proposed changes would involve:

- improving policy settings to better support workforce development and the application and utilisation of tertiary education research
- simplifying the Quality Evaluation to reduce transaction costs
- strengthening reporting on research performance.

An overview of the proposal is summarised below. The tables following on pages 17 to 27 provide more detail on specific options, the rationale for each proposed change, and feedback questions for consideration. Your input will help the Government understand the impacts and consequences of the proposed changes and will inform decisions about whether, or how, to implement them.

Your input on other changes to the PBRF that could improve its effectiveness and efficiency are also welcome.

*Improving policy settings to better support workforce development and the application and utilisation of tertiary education research*

- Financial incentives would be introduced to encourage tertiary education organisations to recruit, retain and develop high-performing new and emerging researchers.
The composition and financial weightings in the External Research Income measure would change:
  o A weighting of two would be placed on research income from non-government sources.
  o Commercialisation income from royalties and sales of intellectual property would be included in the definition of PBRF-eligible External Research Income.

**Simplifying the Quality Evaluation to reduce transaction costs**

- Eligibility criteria would be limited to exclude staff who are based overseas.
- Individual teaching and research staff would be required to submit less evidence as part of the Quality Evaluation:
  o The number of other research outputs that can be included in an Evidence Portfolio would reduce from up to 30 to five.
  o The Contribution to the Research Environment and Peer Esteem components of Evidence Portfolios would be combined into a single ‘Research Contribution’ component.
  o The number of examples of Research Contribution (combined Contribution to the Research Environment and Peer Esteem) that would be included in Evidence Portfolios would reduce from 60 to eight.

- The Quality Evaluation process would be simplified:
  o The special circumstance provisions would be removed.
  o Cross-referrals would be restricted, expert advisory groups for Pacific Research and Professional and Applied Research would be disestablished, and a new peer review panel would be established for Pacific Research.
  o Component scoring would be replaced with a single quality category for each Evidence Portfolio.

**Strengthening reporting on research performance**

- The Tertiary Education Commission would publish more detailed breakdowns of PBRF funding allocations to each tertiary education organisation, alongside information about research performance.
- Reporting of Quality Evaluation results at the institutional level would be simplified. The number of average quality scores (AQSs) would be reduced, with reporting based on:
  o AQS(S): average research quality against the number of teaching only, teaching and research, and research only staff
  o AQS(E): average research quality against the number of equivalent full-time students enrolled at degree level and above.
- Quality Evaluation results at the subject and academic unit levels would be reported using the AQS(S), rather than the AQS(N).
- Information collection to determine staff eligibility and inform performance reporting would be streamlined and strengthened:
  o The staff census would be removed and all information about staff eligibility would be collected in Evidence Portfolios.
The number of full-time equivalent teaching-only, teaching and research, and research-only staff in tertiary education institutions would be collected annually at the time of the Financial Monitoring Framework collection.

In the year of the Quality Evaluation, tertiary education institutions (and participating private training establishments) would provide teaching and research staff information in a disaggregated form, by PBRF subject area and nominated academic unit.

The calculation of AQS(S) would be based on annual cumulative staffing information, rather than a single point in time. This staffing data would be subject to audit.

In addition to the changes to PBRF reporting set out in this proposal for consultation, the Tertiary Education Commission intends to be more explicit with regard to tertiary education institutions’ accountability for research performance through Investment Plans. The Tertiary Education Commission will explore this with the sector as it develops 2015/16 Investment Plan guidance.

**What would the proposal mean for tertiary education organisations, teaching and research staff, and the Tertiary Education Commission?**

**Tertiary education organisations**

Tertiary education organisations would continue to receive PBRF funding based on their research performance.

The PBRF would better support tertiary education organisations to recruit, retain and develop new and emerging researchers.

The PBRF would better recognise and reward tertiary education organisations that undertake research funded by industry and community sources, and activities leading to research commercialisation.

Simplifying the Quality Evaluation process would reduce transaction costs for tertiary education organisations associated with identifying PBRF-eligible staff and assisting staff in preparing their Evidence Portfolios.

The PBRF staff census would be removed. This means that tertiary education organisations would have fewer different processes to provide the staffing data necessary to the PBRF.

Strengthening the reporting of PBRF results and funding allocations would mean that tertiary education organisations have more detailed and robust information about their research performance.

**Teaching and research staff**

Teaching and research staff would continue to prepare Evidence Portfolios for peer review assessment through the Quality Evaluation.

New and emerging researchers should expect their tertiary education organisations to provide opportunities for career development.

Researchers should expect their tertiary education organisations to recognise and reward staff who generate External Research Income and engage in research commercialisation.
Teaching and research staff who make research contributions outside academia would have greater opportunities to have their contributions recognised as excellent through the Quality Evaluation.

Teaching and research staff would not have to provide as much information or supporting evidence to demonstrate their research outputs and activities in the Quality Evaluation. This would reduce the amount of time involved in preparing Evidence Portfolios and enable staff to focus more time on their core responsibilities: research and teaching.

Teaching and research staff who are also managers or department heads would not need to spend as much time reviewing their staff members’ Evidence Portfolios. Teaching and research staff who serve on Quality Evaluation panels would have less material to assess.

Special circumstances provisions would no longer be available for teaching and research staff who prepare Evidence Portfolios for the Quality Evaluation. However, where there are significant events that have a wide impact on staff then specific provisions would be introduced, as was the case with the Canterbury earthquakes.

**Students**

Students should expect high-quality research-led teaching environments at degree level and above. Postgraduate students should have access to training across a full spectrum of research activity, including basic research, applied research and research commercialisation.

Students would have access to more robust information about tertiary education organisations’ research performance. This should support better, more informed student decisions about where to study. High-performing research students may see improved employment opportunities upon finishing their research degrees.

Teaching and research staff should spend less time preparing for the Quality Evaluation and have more time to focus on their core research and teaching activities – those activities in which they have direct interaction with students. This would support more research-intensive learning environments.

**Research end-users**

Research end-users, including industry, iwi and other communities, should expect tertiary education organisations to undertake research activities with cultural, economic, environmental and social benefits to New Zealand.

The PBRF will continue to incentivise high-quality research. It would also support tertiary education organisations and teaching and research staff to engage with end-users to enable research application, utilisation and commercialisation.

**TEC**

Streamlining information collection and simplifying the Quality Evaluation process would reduce transaction costs to the Tertiary Education Commission. Information collection and management requirements would reduce, as would the time and costs involved in the Quality Evaluation process.
Outline of proposed changes to the PBRF

Improving policy settings to better support workforce development and the application and utilisation of tertiary education research

<table>
<thead>
<tr>
<th>The change</th>
<th>Status quo</th>
<th>Detail on the change</th>
<th>Rationale for the change</th>
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<tr>
<td>1. Introduce financial weightings for new and emerging researchers</td>
<td>When the PBRF was introduced, concern was raised that it may disadvantage new and emerging (NE) researchers, who are unlikely to have the same opportunities to build Peer Esteem and Contribution to the Research Environment as established researchers. Changes were made to the Quality Evaluation in 2006 so that new and emerging researchers can achieve a C grade without providing as much evidence of research activity as an established researcher (i.e. fewer research outputs and no evidence of Peer Esteem and Contribution to the Research Environment). The current financial weightings for Evidence Portfolios are: A=5, B=3, C(NE) and C=1.</td>
<td>The weighting for new and emerging researchers would increase. For new and emerging researchers assessed at C(NE) the weighting would be higher than for other C researchers. For new and emerging researchers assessed at B level the weighting would be higher than other B researchers. This would mean that performance weightings are: A=5, B=4 (for new and emerging researchers), B=3 (for others), C(NE)=2, C=1.</td>
<td>Improving the financial incentives for tertiary education organisations to recruit and develop new and emerging researchers would help to support the sustainability of the tertiary education research system. This should help to ensure that a continued flow of new and emerging researchers are developed and move through the system.</td>
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</table>

Feedback questions

3. In your view, would increasing the financial weighting for new and emerging researchers encourage tertiary education organisations to recruit, develop and retain new and emerging researchers?

4. What are the benefits or risks for tertiary education organisations and teaching and research staff of introducing a financial weighting for new and emerging researchers?
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<tbody>
<tr>
<td>2. Redefine PBRF-eligible External Research Income to include commercialisation income from research outputs</td>
<td>All sources of income received to conduct research can be included in External Research Income, but not commercialisation income earned from research outputs.</td>
<td>Include commercialisation income earned from research outputs in the calculation of External Research Income. PBRF-eligible commercialisation income would include income from royalties and sales of intellectual property.</td>
<td>This change would provide greater recognition within the PBRF of the commercial value that end users place on research outputs, and strengthen the incentives for tertiary education organisations to seek commercial research income. This change would bring New Zealand’s research assessment system in line with current practice in the United Kingdom and Australia.</td>
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</table>

Feedback questions

5. In your view, would redefining PBRF-eligible External Research Income to include commercialisation income earned from research outputs encourage individual researchers and tertiary education organisations to seek more commercialisation income?

6. What are the benefits and risks for tertiary education organisations, teaching and research staff, and research end users of redefining PBRF-eligible External Research Income to include commercialisation income earned from research outputs?

3. Require tertiary education organisations to report External Research Income by source and place a weighting on research income from non-government sources | Tertiary education organisations report on the total amount of External Research Income that they receive each year. There is no requirement for tertiary education organisations to report External Research Income by source. Each dollar of External Research Income earned is worth the same amount of PBRF income, regardless of source. | Require tertiary education organisations to report PBRF-eligible External Research Income by the following sources:
- NZ government contestable funds
- NZ public sector contract research
- research income from non-government sources (including funding from business and industry, iwi, and not-for-profit sector)
- commercialisation income.

Apply weightings of:
- 1 for External Research Income from government contestable funds, public sector contract research, and commercialisation income
- 2 for research income earned from non-government sources. | The proposed weightings would recognise the additional effort required by tertiary education organisations to engage with end users and seek out research funding from industry and other community sources. Placing the same value on External Research Income regardless of source may not adequately recognise user perspectives of research quality, or reward user-orientated research from non-government sources. Over time, analysis of the volume of External Research Income by source would provide useful information on the nature of research activities undertaken in the tertiary education sector. |

Feedback questions

7. In your view, would placing a weighting on External Research Income received from non-government sources encourage researchers and tertiary education organisations to seek out research funding from industry, iwi and other community sources?

8. What are the benefits and risks for tertiary education organisations and teaching and research staff of requiring reporting of PBRF-eligible External Research Income by source and placing a weighting on External Research Income received from non-government sources?
# Simplifying the Quality Evaluation to reduce transactions costs

<table>
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<tbody>
<tr>
<td>4. Streamline eligibility criteria for the Quality Evaluation to exclude staff based overseas</td>
<td>Staff based overseas can be eligible for the PBRF if they meet particular requirements.</td>
<td>Staff would no longer be eligible to participate in the Quality Evaluation if they are based overseas.</td>
<td>Removing eligibility for overseas-based staff would focus the assessment on staff who contribute significantly to research and teaching in New Zealand. This change would also provide clarity for tertiary education organisations in an area where there is confusion and remove transaction costs associated with determining whether overseas-based staff are eligible. It would also remove incentives for tertiary education organisations to employ overseas-based staff on fractional contracts to attract additional funding.</td>
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**Feedback questions**

9. What are the benefits and risks for tertiary education organisations and teaching and research staff of excluding overseas-based staff from the Quality Evaluation?

| 5. Reduce the number of other research outputs that can be included in an Evidence Portfolio | Evidence Portfolios are required to include up to four nominated research outputs and up to 30 other research outputs. | Evidence Portfolios would continue to include up to four nominated research outputs (no change), and up to five other research outputs (if four nominated research outputs have been included). | Time spent by staff collecting and collating research outputs for Evidence Portfolios is a significant source of transaction costs related to the PBRF. Reducing the number of other research outputs that can be included in an Evidence Portfolio would reduce the time spent by researchers collecting and collating this information, and by panels assessing this information, while still providing sufficient information to allow for robust assessments. It would also allow for an increased proportion of research outputs to be audited by the Tertiary Education Commission, strengthening the robustness of the data assessed through the Quality Evaluation process. |

**Feedback questions**

10. In your view, would reducing the number of research outputs that can be included in an Evidence Portfolio significantly reduce the amount of time spent by teaching and research staff and tertiary education organisations preparing Evidence Portfolios, while still providing sufficient information to allow for robust assessment?
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<td>6. Combine the Contribution to the Research Environment and Peer Esteem components and reduce the number of examples that can be included in an Evidence Portfolio</td>
<td>Evidence Portfolios can include up to 30 examples of Contribution to the Research Environment and 30 examples of Peer Esteem.</td>
<td>The Contribution to the Research Environment and Peer Esteem components would be combined into a single component - 'Research Contribution'. Evidence Portfolios would include up to eight examples of Research Contribution. Guidance would be more explicit that Research Contribution may include examples of contributions and esteem both within and outside academia.</td>
<td>Developing examples for Evidence Portfolios is time consuming for individual academics. Peer review panels have expressed concern about the large size of Evidence Portfolios and about unnecessary duplication between these components. Combining Contribution to the Research Environment and Peer Esteem would remove duplication and reduce transaction costs. More explicit guidelines would encourage a range of examples to be submitted, including examples of research contribution outside academia.</td>
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Feedback questions
11. In your view, would reducing the number of examples of Peer Esteem and Contribution to the Research Environment significantly reduce the amount of time spent by teaching and research staff and tertiary education organisations preparing Evidence Portfolios, while still providing sufficient information to allow for robust assessment?
12. In your view, would the introduction of a single Research Contribution component, together with more explicit guidelines, improve recognition of research contribution outside of academia within the Quality Evaluation?
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| **7. Remove the special circumstances provisions** | Researchers submitting Evidence Portfolios can claim special circumstances where these account for a reduction in the quantity of research outputs and examples in their Evidence Portfolios. The types of special circumstances that can be claimed are:  
- impact of the Canterbury Earthquakes (2012 Quality Evaluation)  
- extended leave  
- significant community responsibilities  
- leadership positions involving extended or above-the-usual time commitment  
- long-term disability  
- part-time employment  
- other circumstances. These special circumstances can be taken into account by panels when determining quality categories. | Special circumstance provisions would be removed. This proposal would not preclude the introduction of special circumstances provisions where an exceptional event (such as the Canterbury earthquakes) occurs that impacts a large group of people. | Reducing the number of research outputs and examples that can be included in Evidence Portfolios would significantly reduce the need for special circumstance provisions. Special circumstances are designed to reflect reductions in the quantity of items contained with an Evidence Portfolio. However, in 2012 many Evidence Portfolios that claimed special circumstances did not show a reduction in the quantity of research outputs or examples. Claims for special circumstances create transaction costs for the Tertiary Education Commission and assessment panels while resulting in a quality category change in less than 1% of cases. Removing special circumstances would significantly simplify the assessment process, reducing time spent by panels assessing Evidence Portfolios. |

**Questions for feedback**

13. What are the benefits and risks for tertiary education organisations and teaching and research staff of removing the special circumstances provisions from the Quality Evaluation?
The change | Status quo | Detail on the change | Rationale for the change
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8. **Restrict cross-referrals to the interdisciplinary subject areas identified in the PBRF guidelines and disestablish the expert advisory groups**

When tertiary education organisations submit Evidence Portfolios for the Quality Evaluation, they can specify which peer review panel an Evidence Portfolio will be assessed by. Tertiary education organisations can request that an Evidence Portfolio is cross-referred to other peer review panels, and/or expert advisory groups to help the responsible peer review panel assess the material in the Evidence Portfolio.

There are two expert advisory groups for Pacific research and professional and applied research.

When assessing Evidence Portfolios, panels can request specialist advisers to help them assess specialised material in Evidence Portfolios.

Cross-referrals by tertiary education organisations would be limited to Evidence Portfolios that cover the interdisciplinary subject areas identified in the PBRF guidelines. Expert advisory groups would be disestablished and panels would no longer be able to request assistance from specialist advisers.

A new peer review panel would be established to assess Pacific research Evidence Portfolios and assign quality categories (similar to the Māori Knowledge and Development subject panel).

Experts in professional and applied research would be included in the relevant peer review subject panels.

Cross-referrals to peer review panels, expert advisory groups and specialist advisers increase the time and complexity of the assessment process, with minimal impact – cross-referrals result in a change in quality category in less than 1% of cases.

Limiting cross-referrals to specified areas of interdisciplinary research would simplify the assessment process, while still allowing Evidence Portfolios that cover recognised areas of interdisciplinary research to be reviewed by the relevant panels.

Only 4.5% of all Evidence Portfolios were cross-referred to the Professional and Applied Research Expert Advisory Group in the 2012 Quality Evaluation.

The inclusion of experts in professional and applied research on peer review subject panels, introduction of a single Research Contribution section in Evidence Portfolios, and changes to External Research Income would encourage and reward professional and applied research.

The establishment of a Pacific research peer review panel would allow experts in Pacific research to more directly consider the unique paradigms, perspectives and critical stances unique to Pacific research, and assign quality categories to Pacific research Evidence Portfolios.

Feedback questions

14. What are the benefits and risks for tertiary education organisations and teaching and research staff of disestablishing expert advisory groups, establishing a new Pacific research peer review panel, and limiting cross-referrals to interdisciplinary subject areas identified in the PBRF guidelines?

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3 Subject areas identified in guidelines for the 2012 Quality Evaluation were: Area Studies (e.g. Pacific studies, Asian studies, European studies), Audiology, Biomedical research (including pharmacology), Creative writing, Curatorial studies, Interior design, Industrial design and product design, Design history, Environmental studies, Food science and technology, Librarianship and information management, Māori education, Māori health, Multimedia and other media studies areas, and Tourism studies.
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| 9. Remove component scoring and assign a single quality category | To determine a final quality category for each Evidence Portfolio a panel produces:  
  - preparatory numeric scores for each of the three components, then  
  - a preliminary numeric score for the three components, then  
  - a calibrated numeric panel score for each of the three components, then  
  - a holistic quality category, then  
  - a final quality category.  
 A panel is required to score an Evidence Portfolio with special circumstances twice at the preparatory stage – once excluding the circumstances and once considering them. | Instead of developing numeric scores for each of the three components, panels would assign a single quality category to each Evidence Portfolio.  
 This would be checked and calibrated before a final quality category is determined.  
 Additional commentary would be provided for each quality category to give a sense of the placement of the Evidence Portfolio within the band (e.g. high C or low B). | The current process for scoring Evidence Portfolios is complex and time consuming. In the 2012 Quality Evaluation 91.5% of Evidence Portfolios retained the quality category they would have received based on the preliminary scoring stage as their final grade. This indicates that panels have a strong understanding of the quality category descriptors and appropriate assignment. Focusing on a single quality category for each Evidence Portfolio would reduce time spent on the scoring process. The inclusion of additional commentary would help participants understand and interpret scoring information. |

Feedback questions

15. What are the benefits and risks for tertiary education organisations and teaching and research staff of removing component scoring for Evidence Portfolios and assigning a single quality category with accompanying commentary?

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4 In the 2012 Quality Evaluation, these components and their relative weightings were: Research Outputs – 70%, Contribution to the Research Environment – 15%, and Peer Esteem – 15%.
### Strengthening reporting on research performance

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| 10. Publish detailed breakdowns of PBRF funding allocations to each tertiary education organisation | The Tertiary Education Commission produces a detailed report on research performance by tertiary education organisations, subject areas and academic units following each Quality Evaluation. The Tertiary Education Commission also produces a PBRF annual report, which specifies the total amount of funding received by each tertiary education organisation against each of the PBRF’s three measures: Quality Evaluation, Research Degree Completions and External Research Income. The Tertiary Education Commission does not publish detailed breakdowns of PBRF funding allocations to each tertiary education organisation within each of the PBRF’s three measures. | In addition to publishing the total amount of funding received by each tertiary education organisation against each of the PBRF’s three measures, the Tertiary Education Commission would publish breakdowns within each measure as follows:  
- Quality Evaluation, by subject area  
- Research Degree Completions, by subject area, and by weightings for Māori and Pasifika students and te reo theses  
- External Research Income, by source\(^5\). | This change would increase transparency for the public and for staff within tertiary education organisations regarding the relationship between performance in the PBRF and funding. It would also reinforce existing financial incentives for tertiary education organisations to maximise research performance across subject areas, boost Research Degree Completions, and attract External Research Income. |

### Feedback questions

16. What are the risks and benefits for tertiary education organisations, teaching and research staff and the public of publishing more detailed breakdowns of PBRF funding allocations to tertiary education organisations?

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\(^5\) This relies on proposal 3, which would require tertiary education organisations to report External Research Income funding by source.
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| 11. Change the measures for reporting on the average quality of research | The 2012 Quality Evaluation reported on average research quality at the institutional level using four average quality scores (AQSs):  
- AQS(N) reported average research quality against the number of full-time equivalent staff receiving funded quality categories (an A, B, C or C(NE))  
- AQS(S) reported average research quality against the number of full-time equivalent teaching and research staff  
- AQS(E) reported average research quality against the number of equivalent full-time students enrolled at degree level and above  
- AQS(P) reported average research quality against the number of equivalent full-time students enrolled in post-graduate qualifications.  
AQS(N) was used as the primary measure of research quality, with the three other measures providing contextual information.  
Only AQS(N) was reported at the level of subjects and nominated academic units. | Quality Evaluation results would be reported on average research quality at the institutional level using the AQS(S) and AQS(E) measures.  
Quality Evaluation results for subject areas and nominated academic units would be reported using AQS(S).  
The AQS(N) and AQS (P) measures would no longer be reported. | AQS(S) and AQS(E) provide complementary information on comparative research performance across tertiary education organisations.  
- AQS(S) provides information about research intensity and the quality of research undertaken by teaching and research staff in each tertiary education organisation.  
- AQS(E) provides information about the extent to which teaching at degree-level and above is underpinned by quality research.  
Removing AQS(N) at the level of institutions, subject areas and nominated academic units would address concerns about the value of comparing research performance based only on submitted Evidence Portfolios, and the negative incentives this creates for the recruitment, development and retention of new and emerging researchers.  
AQS(P) is a subset of AQS(E). Removing this measure would address concerns about its value as an indicator of the quality of the postgraduate training environment. This measure is highly influenced by student mix, and tends to advantage institutions with proportionately fewer postgraduate students.  
Halving the number of average quality scores would simplify the publication and interpretation of Quality Evaluation results. |

Questions for feedback

17. What are the key benefits and risks for tertiary education organisations, teaching and research staff, and students of removing AQS(N) and AQS(P) and using AQS(S) and AQS(E) to report research performance at the institutional level?

18. What are the benefits and risks for tertiary education organisations, teaching and research staff, and students of removing AQS(N) and using AQS(S) to report research performance at the level of subjects and nominated academic units?
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| 12. Change data collection to assess staff eligibility and inform reporting | The 2012 Quality Evaluation collected information:  
- to assess staff eligibility and location within nominated academic units through the staff census  
- to allow reporting of institutional average quality scores (AQS) through the Single Data Return, including the total number of full-time equivalent teaching-only, teaching and research, and research-only staff. | The staff census would be removed and all information about staff eligibility would be collected in Evidence Portfolios.  
Tertiary education institutions would provide the total number of full-time equivalent teaching-only, teaching and research, and research-only staff to the Tertiary Education Commission in an electronic format each year at the time of data collection for the Financial Monitoring Framework.  
In the year of the Quality Evaluation, tertiary education institutions (and participating private training establishments) would provide staff information to the Tertiary Education Commission in a more disaggregated form, by PBRF subject area and nominated academic unit.  
Both annual teaching and research staff returns, and the disaggregated return provided in the year of the Quality Evaluation, would be subject to audit. Full-time equivalent staff totals would be cumulative over the year, rather than based on a single point in time.  
The calculation of the institutional AQS(S) would be calculated based on the average number of teaching-only, teaching and research, and research-only staff over a three-year period, rather than a single year. | There is currently duplication in the information collected through the staff census, Evidence Portfolios and annual reports. These changes would reduce duplication of effort and improve the quality of the information provided.  
Calculating AQS(S) based on the cumulative annual full-time equivalent teaching and research staff would remove existing incentives for tertiary education organisation hiring decisions to be influenced by a fixed staff census or Single Data Return date.  
The data provided would be subject to audit, so this approach is expected to produce more robust figures than the Single Data Return. |

Feedback questions

19. What are the benefits and risks for tertiary education organisations, teaching and research staff of this proposal to change data collection to assess staff eligibility and inform reporting?
Questions for feedback

Please send us your feedback on this proposal online at http://www.surveymonkey.com/s/PBRFreview, or email your submission to pbrf.review@minedu.govt.nz, by 4 October 2013.

The following is a complete list of questions for consultation. These questions are a guideline only – please feel free to comment on any aspect of the proposal. Your input on other changes to the PBRF that could improve its effectiveness and efficiency are also welcome.

Consultation questions

1. Do the proposed objectives provide a clear statement of the Government’s expectations for the PBRF? What are the key advantages or disadvantages of the proposed objectives?

2. What are the benefits or risks for tertiary education organisations and teaching and research staff of retaining the core design features of the PBRF, including the individual as the unit of assessment?

3. In your view, would increasing the financial weighting for new and emerging researchers encourage tertiary education organisations to recruit, develop and retain new and emerging researchers?

4. What are the benefits or risks for tertiary education organisations and teaching and research staff of introducing a financial weighting for new and emerging researchers?

5. In your view, would redefining PBRF-eligible External Research Income to include commercialisation income earned from research outputs encourage individual researchers and tertiary education organisations to seek more commercialisation income?

6. What are the benefits and risks for tertiary education organisations, teaching and research staff, and research end users of redefining PBRF-eligible External Research Income to include commercialisation income earned from research outputs?

7. In your view, would placing a weighting on External Research Income received from non-government sources encourage researchers and tertiary education organisations to seek out research funding from industry, iwi and other community sources?

8. What are the benefits and risks for tertiary education organisations and teaching and research staff of requiring reporting of PBRF-eligible External Research Income by source and placing a weighting on External Research Income received from non-government sources?

9. What are the benefits and risks for tertiary education organisations and teaching and research staff of excluding overseas-based staff from the Quality Evaluation?

10. In your view, would reducing the number of research outputs that can be included in an Evidence Portfolio significantly reduce the amount of time spent by teaching and research staff and tertiary education organisations preparing Evidence Portfolios, while still providing sufficient information to allow for robust assessment?

11. In your view, would reducing the number of examples of Peer Esteem and Contribution to the Research Environment significantly reduce the amount of time spent by teaching and research staff and tertiary education organisations preparing Evidence Portfolios, while still providing sufficient information to allow for robust assessment?
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18. What are the benefits and risks for tertiary education organisations, teaching and research staff, and students of removing AQS(N) and using AQS(S) to report research performance at the level of subjects and nominated academic units?

19. What are the benefits and risks for tertiary education organisations, teaching and research staff of this proposal to change data collection to assess staff eligibility and inform reporting?